

Foreword

Neuromuscular fatigue is a phenomenon of great importance in everyday life as well as being of great theoretical and clinical significance. Eleven years ago there was a seminal symposium on muscle fatigue held in London. The published proceedings (*Ciba Foundation Symposium 82 - "Human muscle fatigue: physiological mechanisms"*, Pitman, London, 1981) served as an important 'state of the art' reference. In the intervening period there have been many developments with respect to our understanding of fatigue of the motor output, including processes located in the skeletal muscle fibres themselves as well as problems related to various aspects of (moto)neuronal muscle control. However, there are still uncertainties and important questions remain unanswered. We thought the time seemed ripe to attempt a renewed synthesis by bringing together international experts from a range of complementary research areas. In this way, we hoped, attention could be focussed on identifying the key questions that remain to be answered as well as providing an overview of already acquired answers and conclusions. We were fortunate to receive the opportunity to arrange an appropriate meeting as one of the series of "Academy Colloquia" of the *Royal Netherlands Academy of Arts and Sciences* (Koninklijke Nederlandse Akademie van Wetenschappen, KNAW).

We were happy to discover that our plans for a meeting on neuromuscular fatigue apparently were welcomed by our international colleagues; a high proportion of those invited also agreed to come. The symposium took place in Amsterdam during 9-11 April 1992. In accordance with the traditions for Academy Colloquia, the number of participants was limited to about 50; the program consisted of talks as well as poster presentations and much discussion (about 50% of the scheduled time). It should be stressed that, although there was time for only a rather limited number of oral presentations, the contributions of *all* participants were essential for the total impact and success of the meeting. The proceedings of the symposium are summarized in the present book which, we hope, will serve as a useful collective source of information concerning the multifaceted problems of neuromuscular fatigue.

We are very grateful to all those who helped, financially or otherwise, to make this symposium possible. Most of the costs and many of the organizational tasks were taken care of by the KNAW; important administrative contributions were delivered through the office of Drs. R. des Bouvrie (KNAW), Ms. M.M.M. Kooy (KNAW) and Ms. E. Verboom (Department of Muscle and Exercise Physiology) were largely responsible for the administrative organization of the meeting. We are also indebted to Dr. Arnold de Haan for both scientific and organizational advice. Furthermore, we were grateful to receive supplementary financial support from the Netherlands Organization for Scientific Research (NWO). The publication procedures were speeded up thanks to the rapidity with which the participants delivered their professionally formatted camera-ready manuscripts.

In the book, we have tried to arrange the various chapters in a more or less logical order according to subject matter. It should be stressed, however, that a perfect ordering of this kind would be impossible because, as might be expected, many of the contributions dealt with several different aspects of the complex subject matter of this symposium.

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